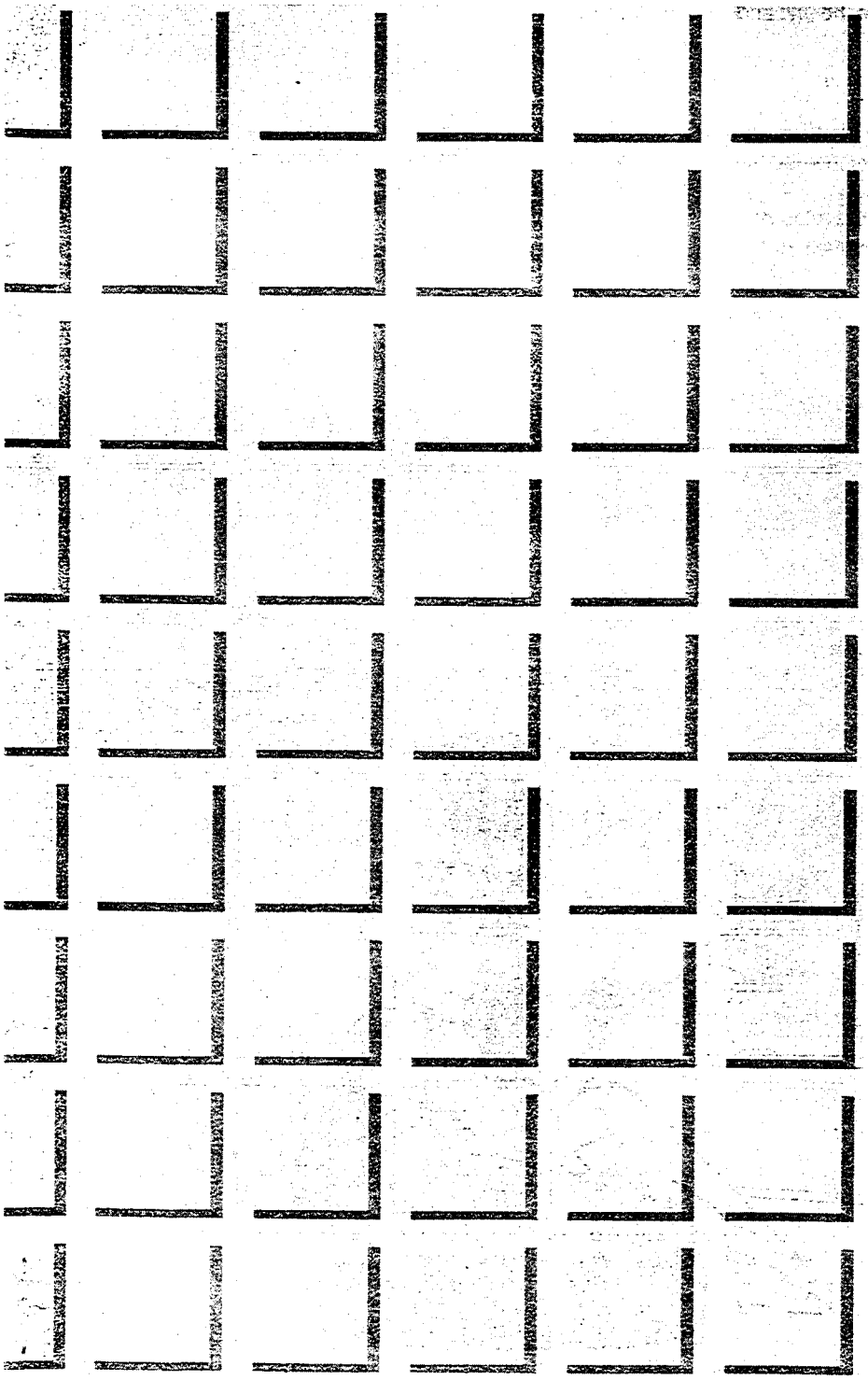


Operating Instructions
Mode d'emploi
Istruzioni per l'uso

Video Cassette Recorder

NV-HD101EG

SHOWVIEW

VQT5396

VHS PAL

SUPER DRIVE SYSTEM

Before attempting to connect, operate or adjust this product, please read these instructions completely.

Dear Customer

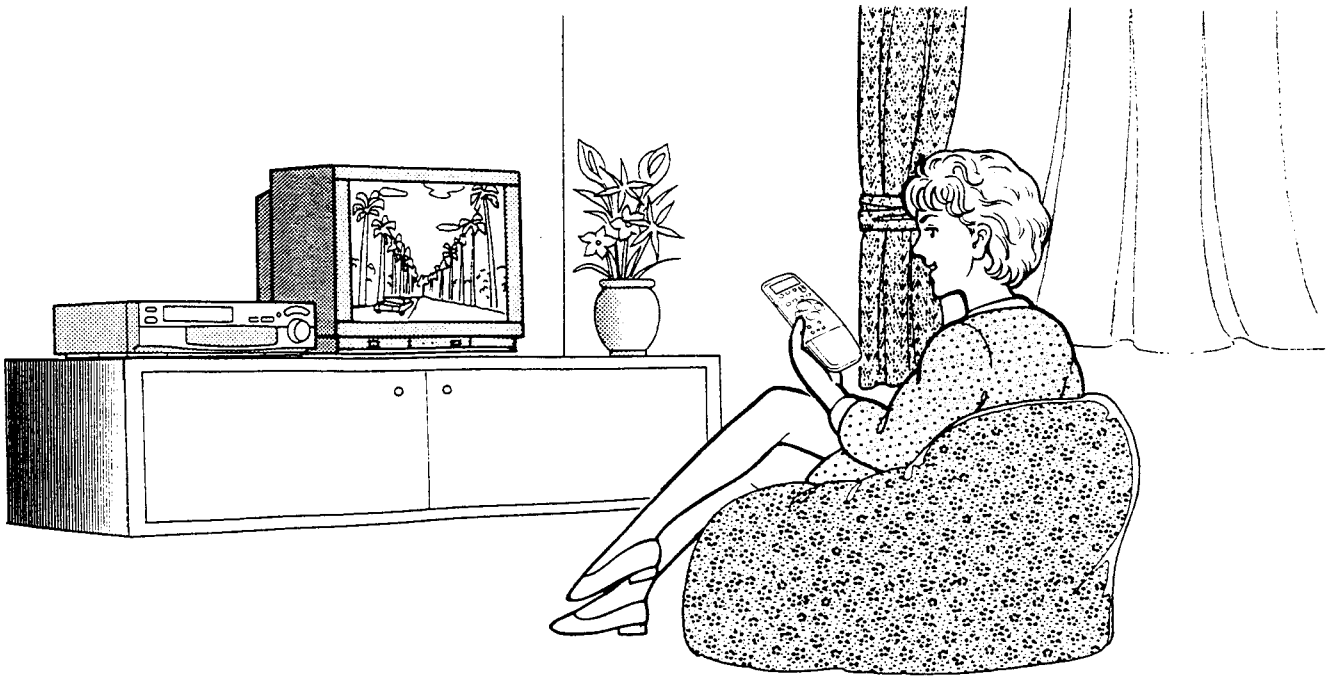
May we take this opportunity to thank you for purchasing this Panasonic Video Cassette Recorder.

We would particularly advise that you carefully study the Operating Instructions before attempting to operate the unit and that you note the listed precautions.

ShowView Programming System

Programming is now easier then ever: simply enter the ShowView number provided in the programme schedule column carried by newspapers and magazines.

- ShowView is a trademark applied for by Gemstar Development Corp. ShowView system is manufactured under license from Gemstar Development Corporation.



Information for Your Safety

IMPORTANT

Your attention is drawn to the fact that recording of pre-recorded tapes or discs or other published or broadcast material may infringe copyright laws.

WARNING

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

Remarks

1. This VTR is capable of receiving SECAM type broadcasting programmes (SECAM B/G) and recording/playing back its colour television signals.
2. When a cassette which has been recorded on this VTR is played back on a SECAM VTR, the picture may be reproduced in black and white. When it is played back on a PAL VTR without SECAM capability, the picture may be not reproduced in normal colour.
3. When cassettes recorded on a SECAM VTR or SECAM pre-recorded cassettes are played back on this VTR, the picture is reproduced in black and white.
4. This VTR is not designed for use in France, where a SECAM VTR should be used instead.

This model conforms to the EC directive (for radio interference) 87/308/EEC.

FOR YOUR SAFETY

■ **DO NOT REMOVE OUTER COVER.**
To prevent electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

HQ (High Quality) Picture System

Video recorders carrying the HQ symbol mark feature the new VHS High Quality Picture System. This system assures complete compatibility with VTRs that use the conventional VHS system.

Contents

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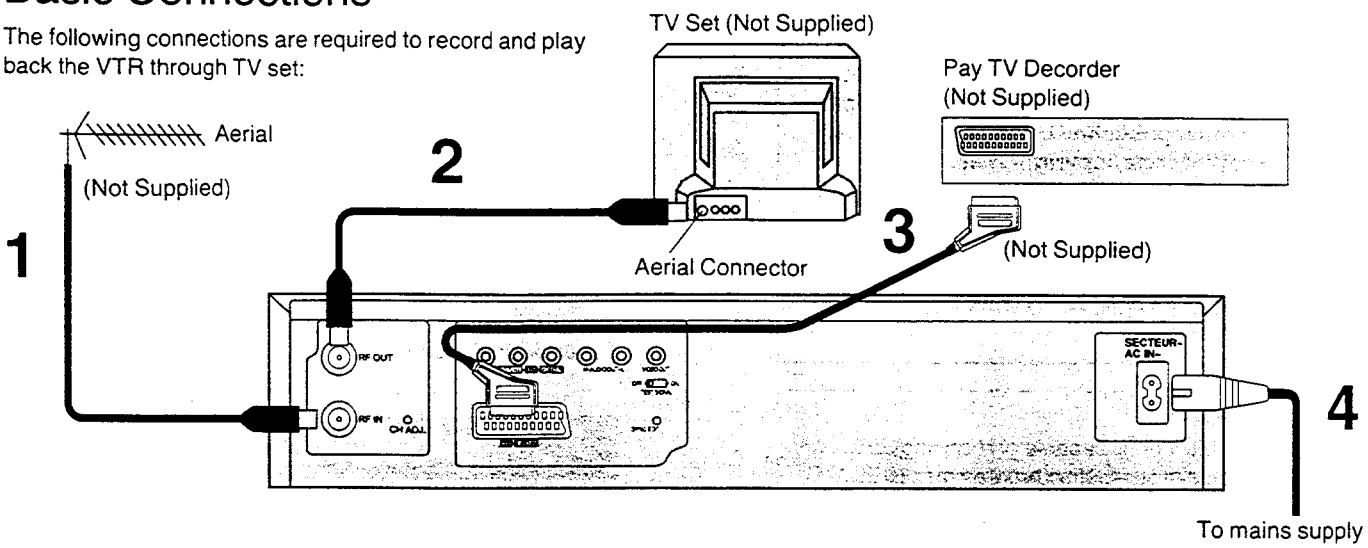
Connections

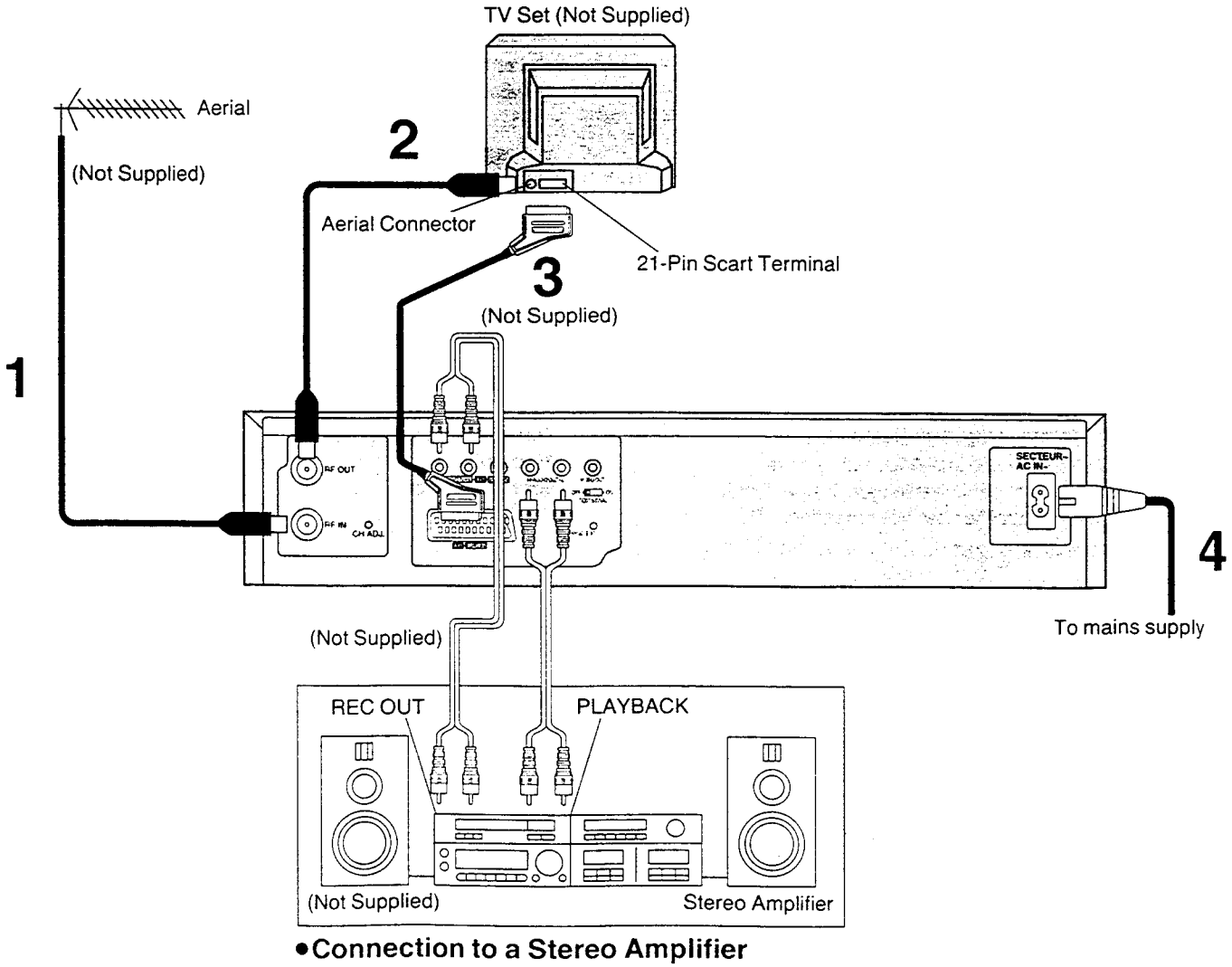
This tells you how to connect with an aerial, TV, etc.

Basic Connections

The following connections are required to record and play back the VTR through TV set:

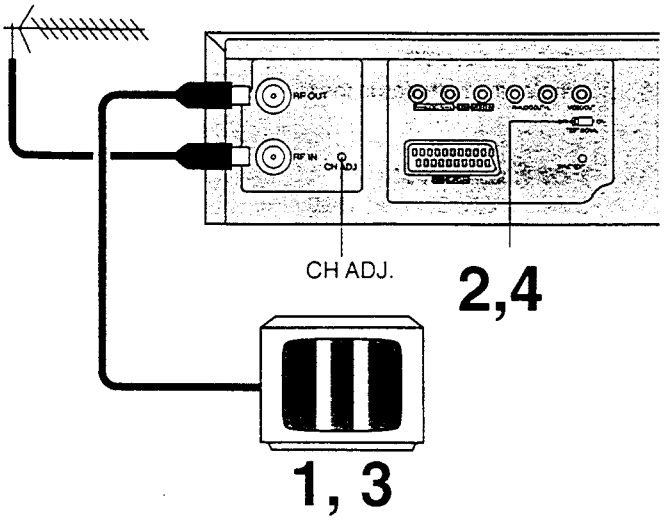


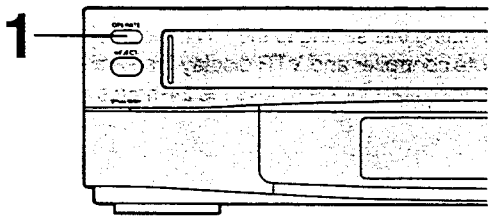
Connection to a TV Set with 21-Pin Scart Terminal



•Connection to a Stereo Amplifier

Tuning the TV to your VTR





The VTR supplies a signal to the TV set via the RF coaxial cable on channel 36.
It is possible to view the video picture on your TV in the same way that you watch TV broadcasts.

If you have connected the VTR to the TV through the 21-pin scart terminal or the audio/video input sockets, then you do not need to follow the procedure mentioned below.

Operations

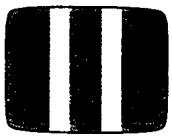
1

Turn on the TV and VTR.

2

To generate a test pattern, set **TEST SIGNAL** to ON.

3



Set the TV to an unused position which you wish to use for your video playback.

4

Set **TEST SIGNAL** to OFF.

Note:
The test signal is transmitted on video channel 36. If you are encountering interference from a TV broadcast on this video channel, you may readjust to another free channel (32~40) by using the **CH ADJ.** screw which is located on the rear of the VTR.
Please note that if the **CH ADJ.** screw is used then you will have to retune your TV to the test signal as in item **2** to **4** above.

Setting the Clock of the VTR

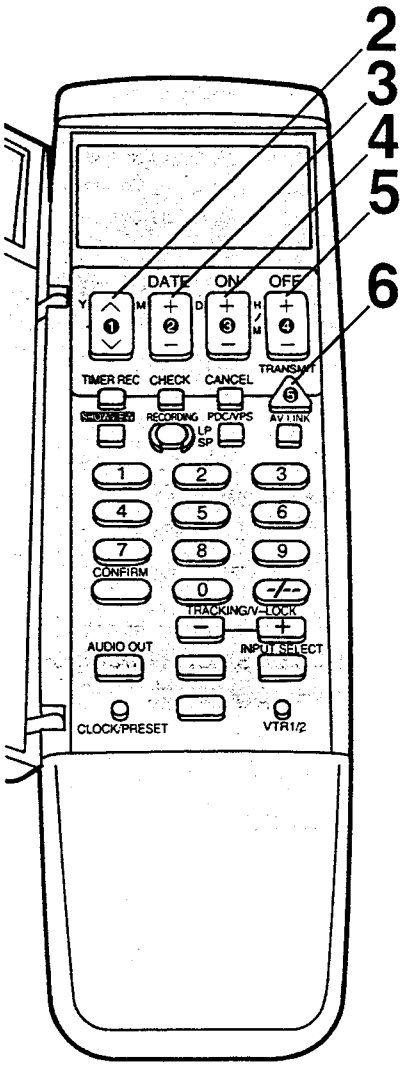
By setting the time on the remote controller's clock and then by transmitting this setting to the VTR, the clocks on both the remote controller and VTR display the same time.
The built-in digital clock employs the 24-hour system.

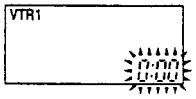
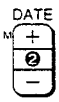
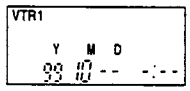
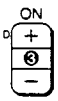
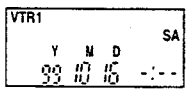
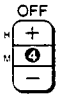
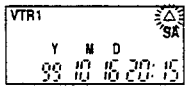
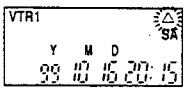
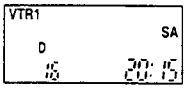
Preparation

- Turn on the VTR.
- Install the batteries in the remote controller.

For Example:

Date; 16th, October, 1999
Time; 20:15



Operations	Display Symbols	
1		Open the door of the remote controller.
2		Set **Year** "99".
3 		Set **Month** "10".
4 		Set **Date** "16".
5 		Set **Time** "20:15". • When it is kept pressed, the indication changes in 30-minute steps.
6		Press **TRANSMIT**.
7		Close the door of the remote controller.

Note:
To change the previous clock setting, press **CLOCK/PRESET** for at least 2 seconds. The previous clock setting will be displayed. Then follow steps **2** to **7** above.

Power Source for the Remote Controller

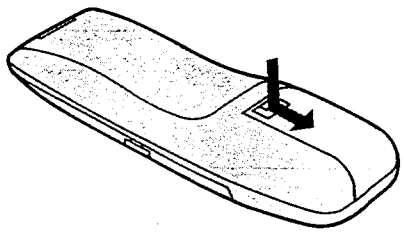
The remote controller is powered by 2 "UM3" or "R6" size batteries. The life of the batteries is about one year, although this depends on the frequency of use.

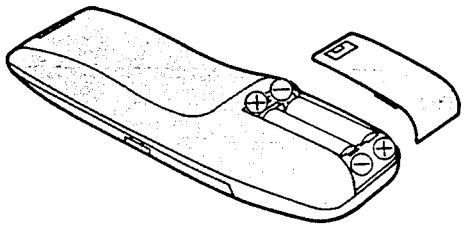
- When the batteries wear out, the ⊏▽⊐ indication appears. When this happens, replace the batteries with new ones.

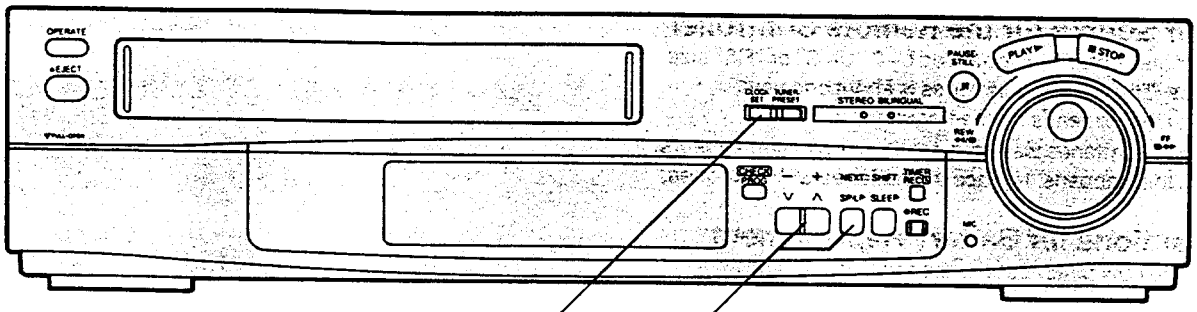
Precautions for Battery Replacement

- Load the new batteries with their polarity (⊕ and ⊖) aligned correctly.
- Do not apply heat to the batteries, or an internal short-circuit may occur.
- If you do not intend to use the remote controller for a long period of time, remove the batteries and store them in a cool and dry place.
- Remove spent batteries immediately and dispose of them.
- Do not use an old and a new battery together, and never use an alkaline battery with a manganese battery.

Installing the Batteries







In addition to setting the VTR clock from the remote controller, it can also be set directly from the VTR.
The built-in clock is used to activate the timer for automatic recording and must be set to the correct time.

The built-in digital clock employs the 24-hour system.

Preparation

Turn on the VTR.

For Example:

Date; 16th, October, 1999
Time; 20:15

Operations		Display Symbols	
1	CLOCK SET		Keep **CLOCK SET** pressed for more than 2 seconds.
2	Set each item by pressing + or – and **NEXT**.		
	– +		Set **Year** "99".
			Set **Month** "10".
			Set **Date** "16".
	NEXT		Set **Hour** "20".
			Set **Minute** "15". • There is no need to press **NEXT**.
3	CLOCK SET		Press **CLOCK SET**. • The clock will start.

Note:
The clock operates for at least 60 minutes by its backup system in the event of power failure.

Time Reset Function

If the clock is less than two minutes slow or fast, it can easily be reset to the proper time.

For example:
Resetting the clock to 12:00.00

1 Press **CLOCK SET** at any time between 11:58.00 and 12:01.59 for more than 2 seconds.

2 Press **CLOCK SET** again as soon as you hear the 12:00.00 time signal.

Summer Time Function

Setting to summer time

1 Keep **CLOCK SET** pressed for more than 2 seconds.

2 Press **SHIFT**.
- The time on the clock is advanced by 1 hour.

3 Press **CLOCK SET**.

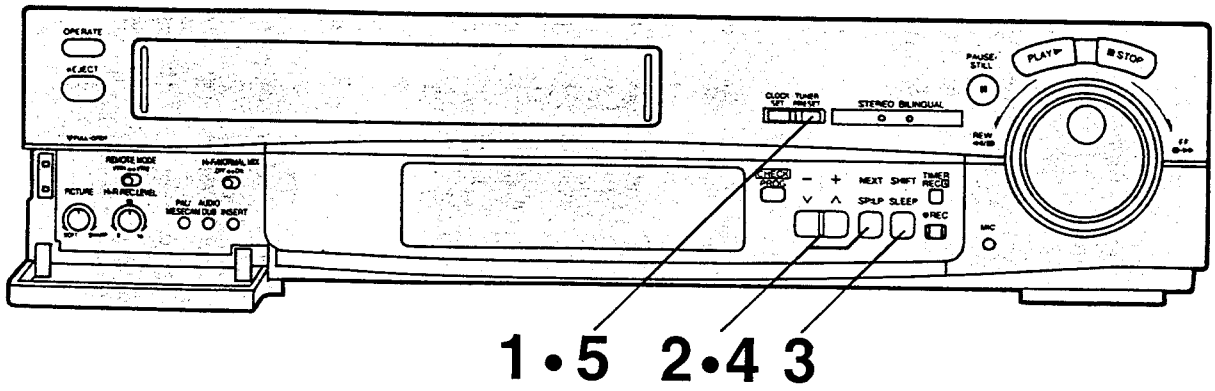
Returning from summer time to standard time

1 Keep **CLOCK SET** pressed for more than 2 seconds.

2 Press **SHIFT** twice.
- The time on the clock is set back by 1 hour.

3 Press **CLOCK SET**.

Storing TV Broadcasts into your VTR



Introduction

The VTR is fitted with its own tuner (just like a normal TV set) and can be pre-set to receive up to 99 TV broadcast stations.

Preparation

- Confirm that the TV is on and the VTR viewing channel is selected.
- Turn on the VTR and Select any programme position except A1 and A2.

Operations	Display Symbols	
1 TUNER PRESET		Keep **TUNER PRESET** pressed for more than 2 seconds.
2 − + NEXT		Select the programme position, then press **NEXT**.
3 SHIFT		Select **DBS** ON or OFF. • 1 (DBS OFF): To preset normal TV stations. • 2 (DBS ON): To preset DBS stations such as Pay TV (Premiere).
4 − +		Tune in the desired TV channels. • Press **PAL/MESECAM** to select SECAM system so that MESECAM indicator is lit. • Press **NEXT** and repeat steps **2–4** for each programme position you want to tune to a station.
5 TUNER PRESET		Press **TUNER PRESET** twice.

Fine Tuning Procedure

1 Keep **TUNER PRESET** pressed for more than 2 seconds, and then press again.

2 Press **NEXT**.

3 Press + or − to obtain the best tuning condition.
- "AFC" Indicator disappears.
- To return the tuning to its former state, press **SHIFT**.

4 Press **TUNER PRESET**.

Blanking of Unoccupied Programme Positions

1 Keep **TUNER PRESET** pressed for more than 2 seconds.

2 Select a programme position which you do not want to tune to a TV station, by using + or −.

3 Press **SHIFT**. ("––" is displayed.)
- Repeat steps **2** and **3** for another unoccupied programme positions to skip during the selection of the programme positions.
- To cancel the blanking of a programme position, select that programme position on the VTR and then press **SHIFT**.

4 Press **TUNER PRESET** twice.

Channel Plan

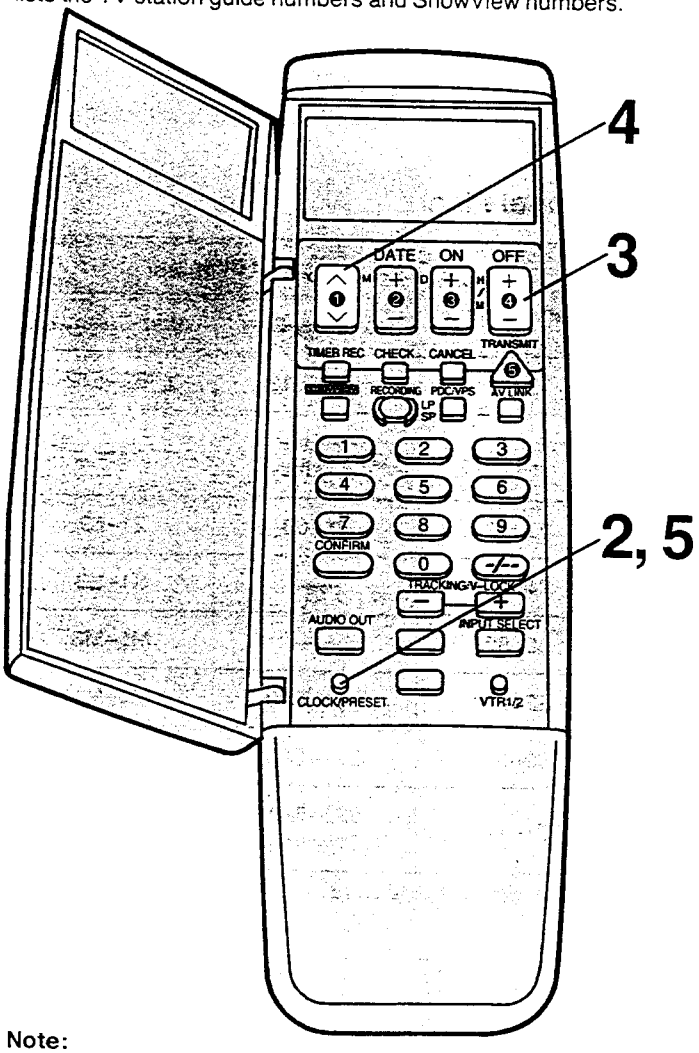
Channel Indication	TV Channel	
	Germany/Italy	Other Countries
2–12	*E2–E12	E2–E12
13–20	A–H (Only Italy)	——
21–69	21–69	21–69
74–76	——	S1–S3
80–82	——	M1–M3
83–89	S4–S10	M4–M10
90–99	S11–S20	U1–U10
121–141	S21–S41 (Only Italy)	S21–S41

*In Italy: H1...(11), H2...(12)

Preparations for ShowView programming

Setting Up the Remote Controller for the ShowView Programming

This remote controller uses specially designated numbers called "guide numbers" to differentiate between the TV stations. Before programming using the ShowView numbers, you must enter the guide numbers of the TV stations to be viewed and the programme positions at which those TV stations are received on the VTR into the remote controller. Have a newspaper or magazine at hand which lists the TV station guide numbers and ShowView numbers.



Note:

To receive satellite stations, the satellite receiver must be connected to the VTR and programme position must be set depending on the type of the connection made.

A1: When the satellite receiver is connected to the AV1 socket

A2: When the satellite receiver is connected to the AV2 socket

- When the satellite receiver is connected by means of the RF coaxial cable, set to a free programme position between 1 and 99.

Preparation

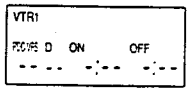
Set the clock of the remote controller first.

For example:

TV Station	Guide Number	Programme Position
ARD	001	1
ZDF	002	2
RTL PLUS	004	4
SAT1	005	3
⋮	⋮	⋮

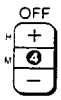
Operations — Display Symbols

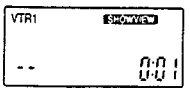
1 Open the door of the remote controller.



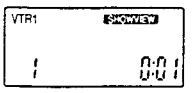
2 Keep **CLOCK/PRESET** pressed for more than 2 seconds and then press it again.

3 Select the guide number (001–255).



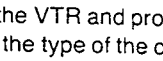


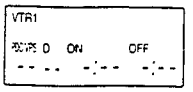
4 Select the programme position (1–99, A1, A2).



- To set the other TV stations, repeat steps **3** and **4**.

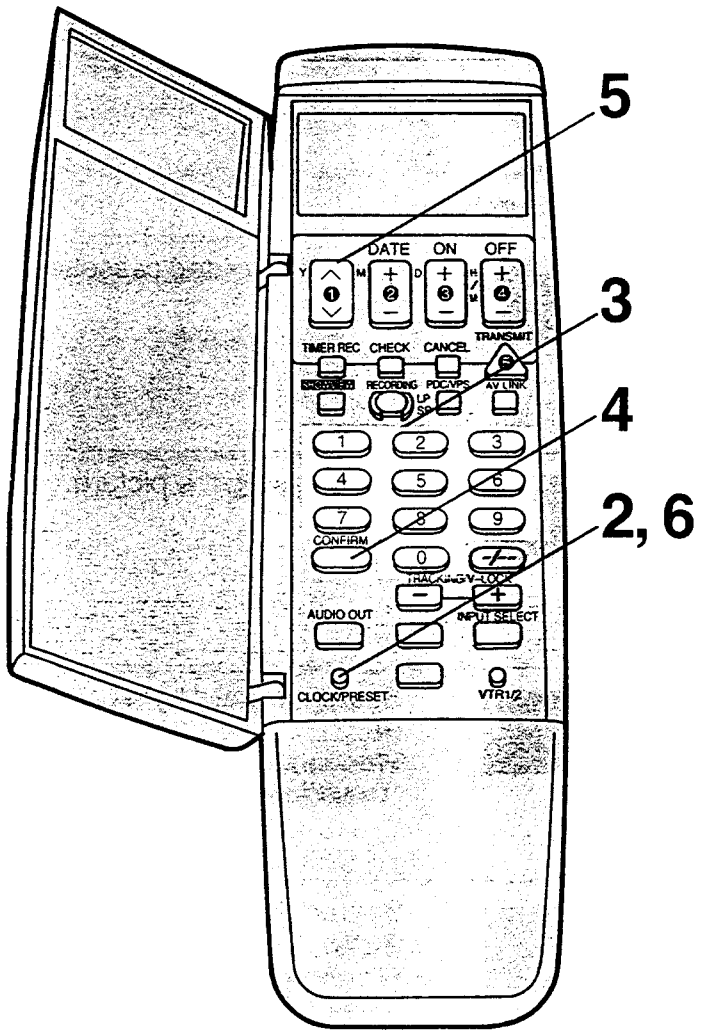
5 Press **CLOCK/PRESET**.





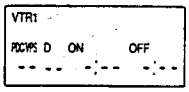
6 Close the door of the remote controller.

If you do not know the guide number of a programme for which a ShowView number is supplied, you can determine the guide number by proceeding as follows:



Operations	Display Symbols

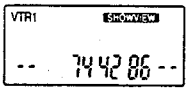
1 Open the door of the remote controller.



2 Keep **CLOCK/PRESET** pressed for more than 2 seconds and then press it again.

CLOCK/PRESET

3 Enter a ShowView number.
Example: 744286



- If you have entered the wrong number, press **CANCEL** and then enter the proper number.

4 Press **CONFIRM** to set the guide number.

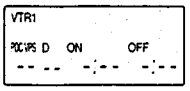
CONFIRM

5 Select the programme position (1–99, A1, A2).

- To set the other TV stations, repeat steps **3** and **5**.

6 Press **CLOCK/PRESET**.

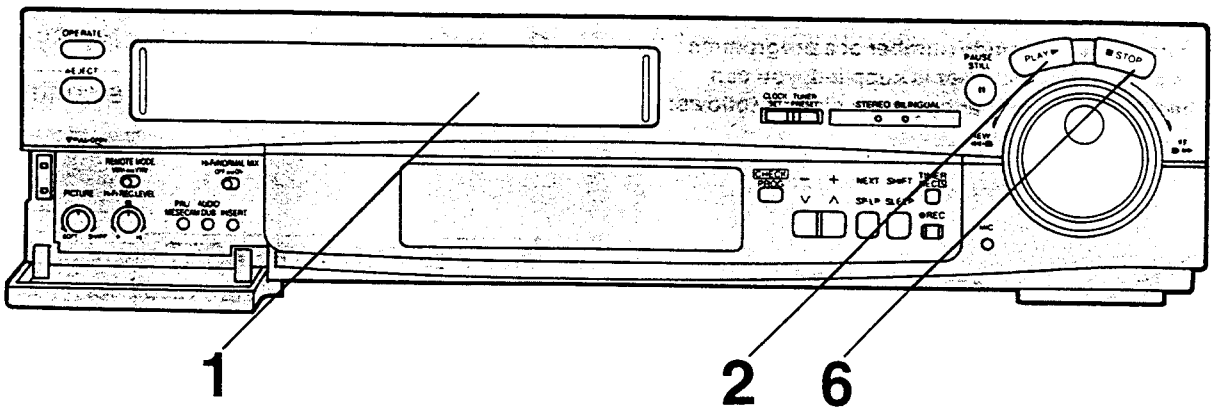
CLOCK/PRESET

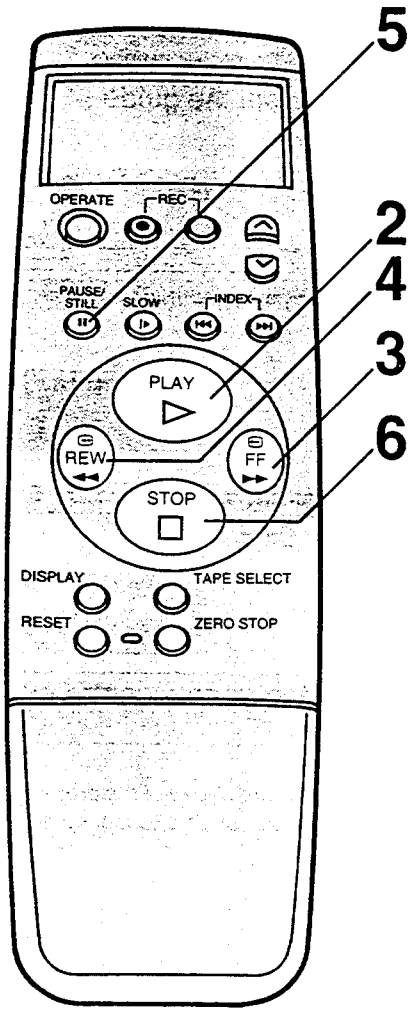


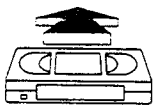
7 Close the door of the remote controller.

Note:
Enter ShowView numbers which are ahead of the present time. Otherwise, they will not be set into the proper guide numbers.

Playback





Operations	Display Symbols	
1 		Insert a recorded cassette tape.
2 PLAY ▷		Start viewing the picture.
3 → FF ▶▶		Search forward by tapping **FF**. •To change back to normal playback, press **PLAY**.
4 → REW ◀◀		Search backward by tapping **REW**. •To change back to normal playback, press **PLAY**.
5 → PAUSE/ STILL ⏸		View a still picture. •To continue the normal playback, press **PLAY** or **PAUSE/STILL**.
6 STOP □		Stop viewing the picture.

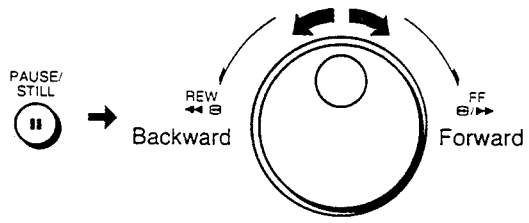
Other Playback Functions

To change the Playback Speed

Using Shuttle Ring:

1 Press **PAUSE/STILL** on the VTR.

2 Rotate Shuttle Ring.



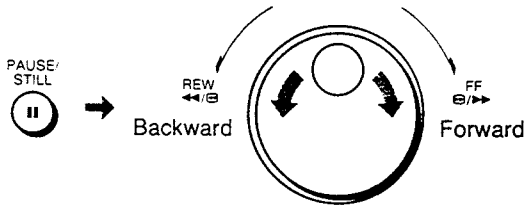
Using Remote Controller:

During playback, press the **SLOW** to switch to slow motion playback.

To locate the Desired Picture Exactly

1 Press **PAUSE/STILL** on the VTR.

2 Turn Jog Dial.



To obtain High Speed Picture During Fast Forward or Rewind

Keep **FF** pressed during fast forward.
Keep **REW** pressed during rewind.

- The same operation can also be performed by turning the Shuttle Ring.

To return to a Specified Scene

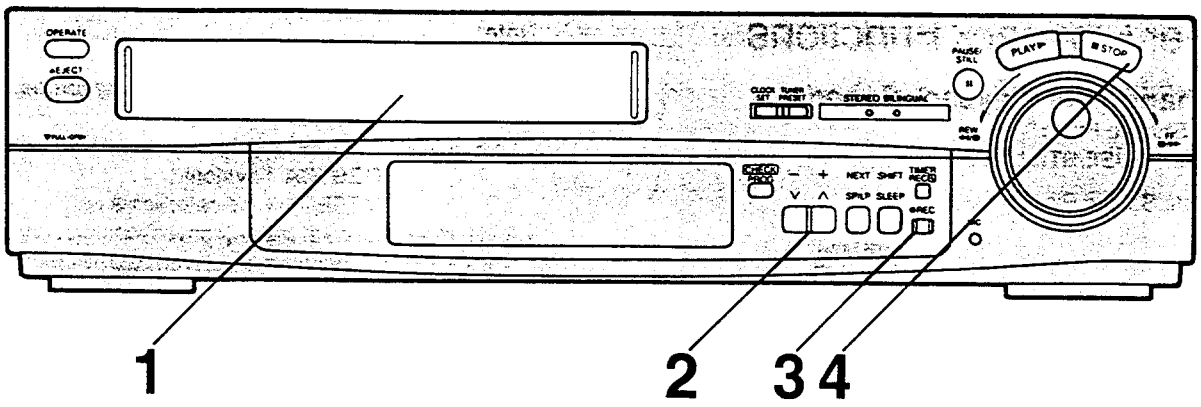
1 Press **RESET** to set the counter to 0:00.00.
2 After playback, press **ZERO STOP** in the stop mode.

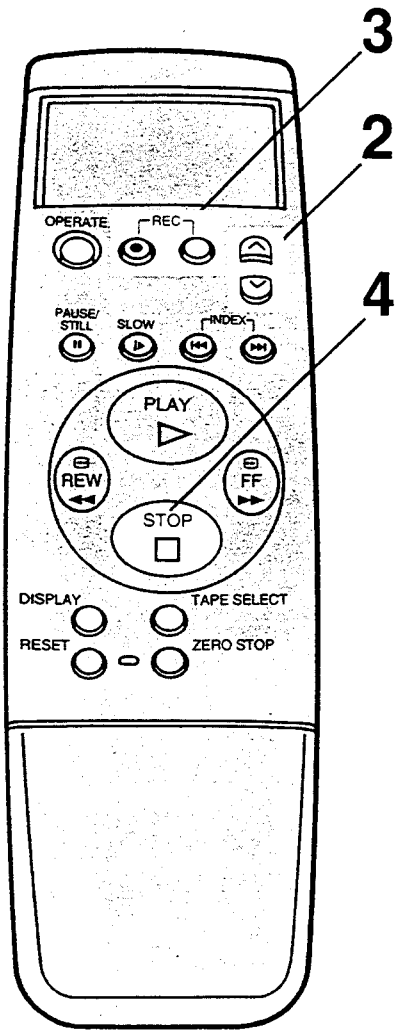
- The tape will be rewound or fast forwarded to 0:00.00.

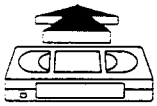
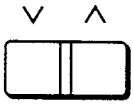
Note:

- During Playback, set **PAL/MESECAM**.
  PAL: : When playing back a tape recorded in the PAL system
  MESECAM: When playing back a tape recorded in the MESECAM system
  MESECAM Indicator lights up.
- Audio reproduction of linear (conventionally recorded) tapes will be monaural when played back on the FM Hi-Fi video recorders.
- Cue, review or slow playback will be automatically released after 10 minutes, and still playback after 5 minutes.

On-the-spot Recording





Operations	Display Symbols	
1 		Insert a cassette tape. • If it has already been inserted, press **OPERATE** to turn the VTR on.
2 		Select TV station.
3 ●REC		Start recording.
4		Stop recording.

To select the Desired Tape Speed

Press **SP/LP** before recording.

To interrupt Recording

Press **PAUSE/STILL** during recording.
Press again to continue recording.

To record One TV Programme while Viewing Another Programme

1 Refer to the on-the-spot recording operations steps **1** to **3**.

2 Select the TV programme on your TV set you wish to view at the present time.

To display the Approximate Remaining Tape Time

1 Press **TAPE SELECT** to select the corresponding cassette tape length.

E195: For E30, -60, -80, -120, -180 and -195 tapes
E240: For E240 tape
E260: For E260 tape

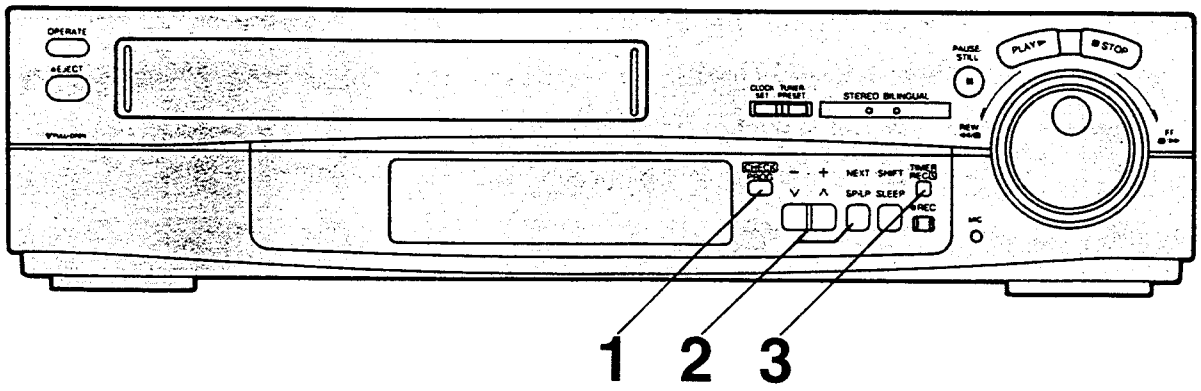
2 Press **DISPLAY**.

→Clock→Counter→**Remaining Tape Time**—┐

Notes:

- When a video cassette with a broken off tab is inserted, the "⊙⊙" indication will flash to indicate that recording is not possible.
- The recording pause mode will be automatically released after 5 minutes, and be back to the stop mode.

Timer Recording



Up to 8 timer programmes can be recorded up to one month in advance by setting the timer, including daily and weekly programmes.

Preparation

Insert a cassette tape with an intact erasure prevention tab.

For Example:

Timer Programme number;	1
Programme position (channel);	2
Date;	27th, October
Starting time;	20:02
Ending time;	21:30
(Present date; 16th October)	

Operations	Display Symbols	
1 CHECK PROG		Select **Timer Programme number** "1".
2 Set each items by pressing + or − and **NEXT**.		
		Set **Programme position** (channel) "2".
− +		Set **Date** "27". •For daily and weekly recording, see next page.
		Set **Starting time** (hour) "20".
		Set **Starting time** (minute) "02".
NEXT		Set **Ending time** (hour) "21".
		Set **Ending time** (minute) "30". •There is no need to press **NEXT**.
3 TIMER REC		To activate timer recording, press **TIMER REC**.

Setting for Daily and Weekly Timer Recording

In the Date setting step, press – button repeatedly until the desired day(days) is displayed.

Daily recording

From Sundy to Saturday

From Monday to Saturday

From Monday to Friday

Weekly recording

For example, Sunday

Timer Recording from External Signal Source

If Timer Recording is performed by a unit connected to the Euro AV socket or the Audio/Video input sockets, select the A1 or A2 indicator for the programme position.
A1: Through the Euro AV socket (AV1)
A2: Through the Audio/Video input sockets (AV2)

Selecting the Desired Tape Speed

After step **2**, press **NEXT** and select SP or LP by pressing + or –.

Setting other Programmes in Succession

Repeat steps **1** and **2**.

Checking a Timer Programme

Select the timer programme number to be checked by pressing **CHECK/PROG**.

Cancelling a Timer Programme

1 Release from the standby mode by pressing **TIMER REC**.

2 Select the timer programme number to be canceled by pressing **CHECK/PROG**.

3 Press + and – simultaneously for more than 3 seconds.

PDC (Programme Delivery Control)/VPS (Video Programme System)

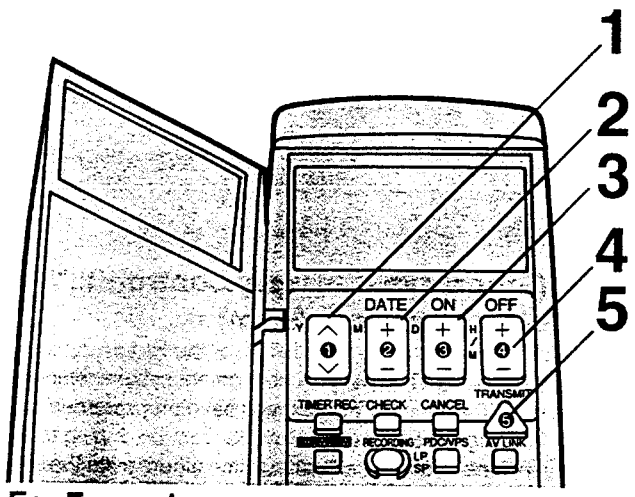
The Video Programme System (VPS) or the Programme Delivery Control (PDC) is a very convenient system which assures that the TV programmes you have programmed for timer recording will be recorded exactly from beginning to end, even if the actual broadcasting time differs from the scheduled time due to delayed start or extension of the programme duration. Also, if a programme is interrupted and, for example, some special news are inserted, the recording will also be interrupted automatically and resumed when the programme continues.

- Press **SHIFT** in step **2** to cancel the VPS (PDC) function.
- In the case of VPS (PDC) recording, use the **correct** time (VPS/PDC time) for recording the TV programmes. VPS (PDC) recording is not performed when the time (VPS/PDC time) is incorrect, even if only by one minute.
- If the actual broadcasting times of timer recordings overlap (regardless of whether they are VPS/PDC-controlled), the recording that starts first has always priority, and the recording of the later beginning programme will start only after the first timer recording has finished.
- When the VPS (PDC) signal drops out because the broadcast signal is weak, or when a broadcasting station does not transmit a regular VPS (PDC) signal, the timer recording will be performed in the normal mode (without VPS/PDC) even if it was programmed for VPS (PDC). In this case, even if the timer recording is performed, whatever has been programmed will not be cancelled at that particular time but at 4 a.m. on the following day.

Note:

If a timer recording is not performed to the end (due to insufficient tape or cancellation by the user), the programmed timer recording data will be cancelled from the memory by 4 a.m. two days later.
However, if the Timer Record Function is activated at that time, the programmed timer recording data will be cancelled at 4 a.m. the next day.
The PDC system is used in the United Kingdom.

Using the Remote Controller



For Example:

Programme position (channel); 2
Date; 27th, October
Starting time; 20:02
Ending time; 21:30

Preparation

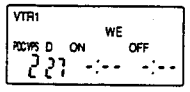
- Insert a cassette tape with an intact erasure prevention tab.
- Open the door of the remote controller.

Operations **Display Symbols**

1 Set Programme position (channel) "2".

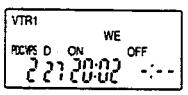
2 Set Date "27".

DATE



3 Set Starting time "20:02".

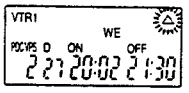
ON



- When it is kept pressed, the indication changes in 30-minute steps.

4 Set Ending time "21:30".

OFF



5 Press **TRANSMIT**.

TRANSMIT

6 Close the door of the remote controller.

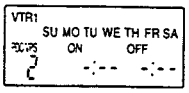
Daily Timer Recording

For this timer function, several groups of days can be selected.

Ⓐ Daily recording from Sunday to Saturday
Ⓑ Daily recording from Monday to Saturday
Ⓒ Daily recording from Monday to Friday

In step **2**, select the desired days by pressing **DATE** –.
For Example, Ⓐ

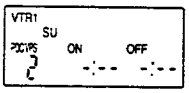
DATE



Weekly Timer Recording

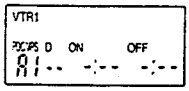
In step **2**, select the desired day by pressing **DATE**–.
For example, SU (Sunday)

DATE



Timer Recording from External Signal Source

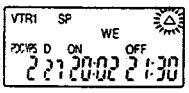
If Timer Recording is performed by a unit connected to the AV1 socket or the AV2 socket, select the A1 or A2 indicator in step **1** for the programme position.
A1: Through the AV1 socket
A2: Through the AV2 socket



Selecting the Desired Tape Speed

Press **RECORDING SP/LP** in any of steps **2–4**.

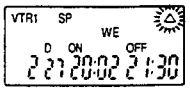
RECORDING LP SP



Turning VPS/PDC function on and off

Press **PDC/VPS** in any of steps **2–4**.

PDC/VPS



Checking a Timer Programme

- The VTR must be turned on, or the timer recording indicator "⏲" is lit.

Press **CHECK** repeatedly until the desired timer programme number is displayed.

CHECK

Cancelling a Timer Programme

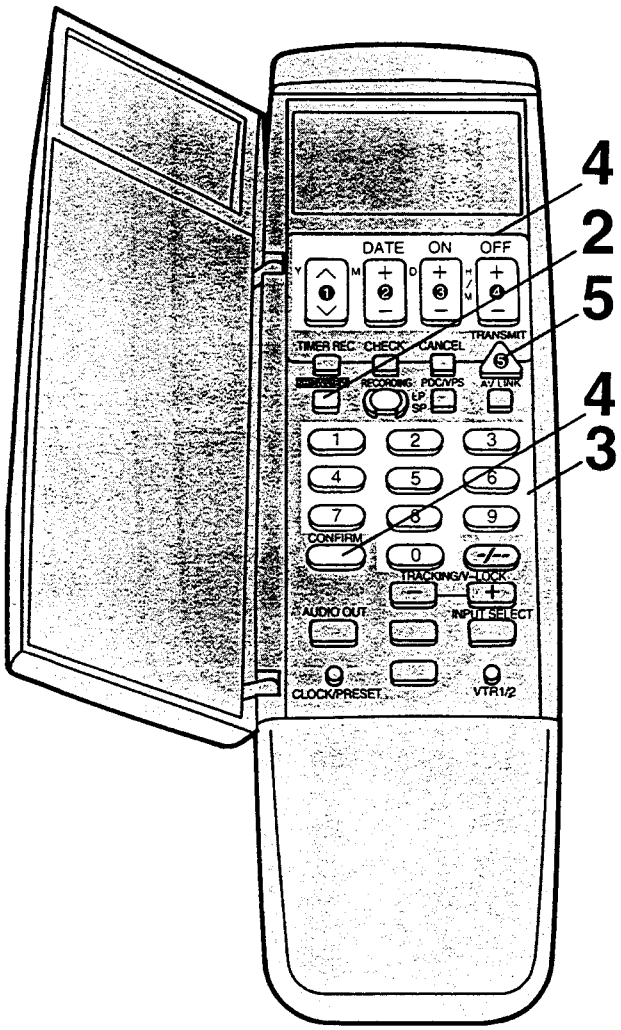
1 Press **CHECK** repeatedly until the desired timer programme number is displayed.

2 Press **CANCEL**.

CHECK CANCEL

ShowView Programming

Programming is now easier than ever: simply enter the ShowView number provided in the programme schedule column carried by newspapers and magazines. ShowView numbers are numbers which are assigned to each programme listed in the TV programme schedule carried in newspapers and TV guides. When these numbers are entered and **TRANSMIT** is pressed, the numbers are converted into the actual programming and sent to the VTR.

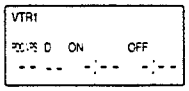


Preparation

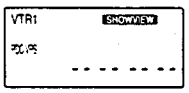
- Insert a cassette tape with an intact erasure prevention tab.
- Set the programme positions on both the VTR and remote controller as shown on pages 10–13.

Operations	Display Symbols

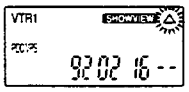
1 Open the door of the remote controller.



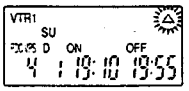
2 Press **SHOWVIEW**.



3 Enter a ShowView number.
Example: 920216



4 Press **CONFIRM** to check that the code corresponds to the right programme.



- To make any corrections, use buttons ❶~❹.

5 Press **TRANSMIT**.

6 Close the door of the remote controller.

Notes:

- To select the desired tape speed, press **RECORDING SP/LP** in any of steps **3–4**.
- To turn VPS/PDC function on and off, press **PDC/VPS** in any of steps **2–4**.
- When the ShowView number is used for programming, the recording time may be slightly longer than the actual programme time.
- Repeat steps **2** to **4** if "Err" appears on the remote controller.
- When programming two or more programmes, repeat steps **2** to **5** after pressing **TRANSMIT**.
- The procedures for checking and canceling whatever has been programmed are the same as for remote control programming.

Other Functions

VHS Index Search System

It is very easy to find the beginning of each recording, because a special index signal is recorded at the start of each recorded segment on the tape.

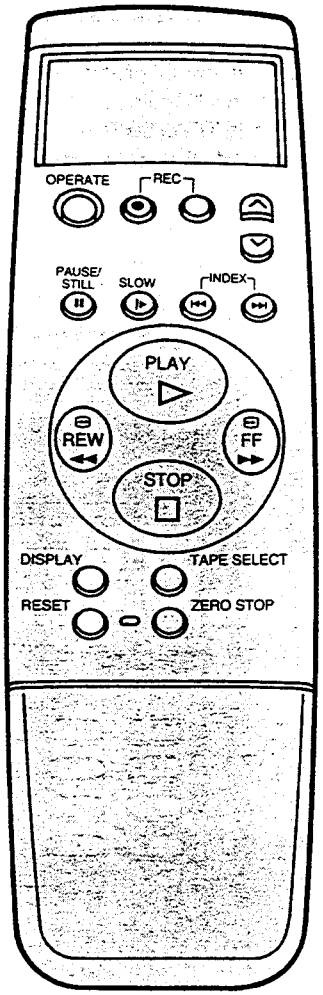
For example:
Searching for the 2nd recorded segment in the forward direction.

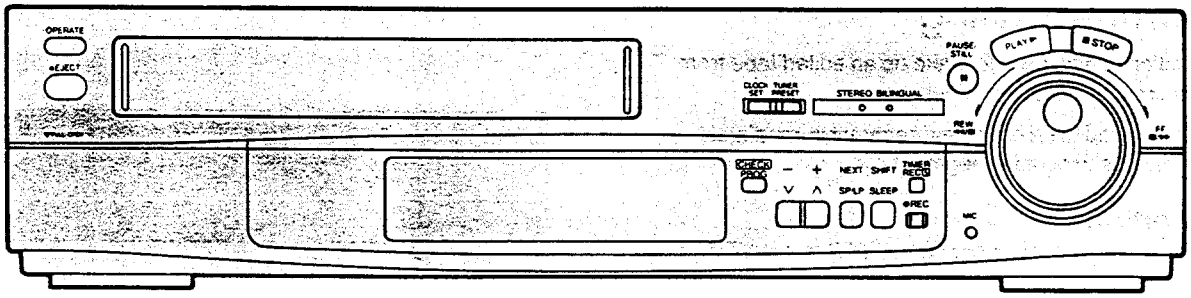
Press **INDEX ▶▶I** twice.

- After finding the specific recorded segment, playback starts automatically.
- For the reverse direction, press **INDEX I◀◀**.
- Up to 20 index signals can be searched for in both directions.
- The figure on the display is decremented by 1 each time an index signal is located. Bear in mind that the display will be decremented in this way even while either **INDEX** button is being pressed.

Recording Index Signals
Index signals are recorded in following cases.
WRITE indicator appears on the Display.
- When a recording is started by pressing **REC**
- When **REC** is pressed during recording
- When timer recording is activated

Note:
The INDEX search function can only work correctly, if the index signals are spaced at least 3 minutes apart in the SP mode and 5 minutes apart in the LP mode.





Automatic VTR off time setting

Press **SLEEP** for the desired time.

SLEEP

- Each press gives a 30 minutes time span up to 9 hours.
- To cancel the setting time, press **SLEEP** repeatedly to set 0:00.

NTSC Playback

Tapes recorded in the NTSC system can be played back with this VTR via a PAL system TV set.

Other Automatic Functions

Automatic Playback

When a cassette without an erasure prevention tab is inserted, the VTR starts playback automatically.

VTR-off Playback

When the VTR is off, an inserted cassette can be played back by pressing **PLAY**.

Automatic Rewinding

When the tape reaches its end during recording (except for timer recording) or playback, it will automatically be rewound to the beginning.

Automatic Switching Off and Ejection

When the VTR is switched off, an inserted cassette can be ejected simply by pressing **EJECT**. The VTR will eject the cassette and automatically turn itself off again.

Editing

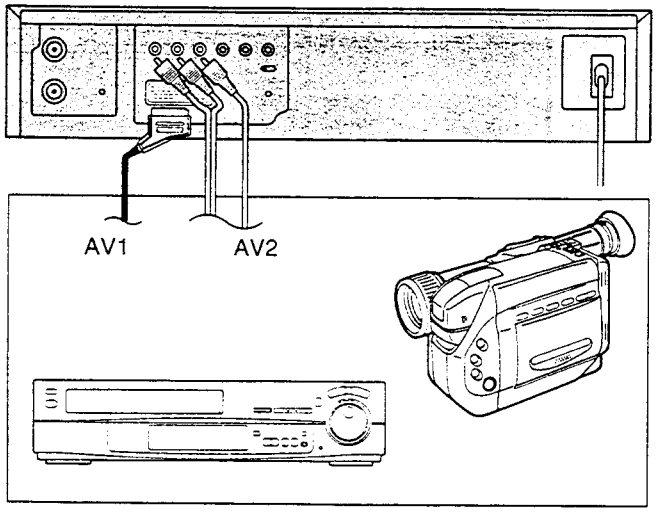
Assembly Editing

This function can be used to make up an edited tape from other recordings or video sources.

This enables you to record a new segment immediately after a previously recorded segment.

Preparation

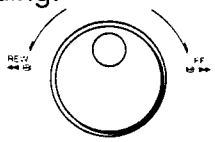
- Connect a movie camera or another VTR to this VTR as shown.
- Insert a recorded cassette tape with an intact erasure prevention tab.
- Select the video source required by pressing **INPUT SELECT** to set A1 or A2.
  A1: Through Euro AV socket (AV1)
  A2: Through Audio/Video input sockets (AV2)
- Set **PAL/MESECAM** according to the colour TV system of the video source.
  PAL: When receiving PAL signals
  MESECAM: When receiving SECAM signals
  The MESECAM indicator lights up.



Operations

1 Press **PAUSE/STILL** on the VTR.

2 Search for the end of the previous recording.



3 Press **REC** to switch the VTR from the pause mode to the recording standby mode.

4 Start the new recording by pressing **PAUSE/STILL** again.

Note:
The new sound will be recorded on both the normal and Hi-Fi sound tracks, only monaural sound recording is possible on the normal sound tracks.

Synchronized Editing

It is possible to synchronize the playback start and stop of the Movie Camera with the recording start and stop of this VTR.

- Connect a Movie Camera to this VTR with Synchro Connection Cord (optional).

1 Put the VTR in the recording pause mode by pressing **REC** and **PAUSE/STILL**.

2 Put the Movie Camera in the still playback mode at the point where you want to start editing.

3 Press **PAUSE/STILL** on the VTR.
- The Movie Camera changes over to the playback mode and the dubbing will start automatically.

Synchronized Editing between the VTRs
When editing from another VTR equipped with Synchro Edit Socket, synchronized start and stop of both VTRs can be activated from this VTR.

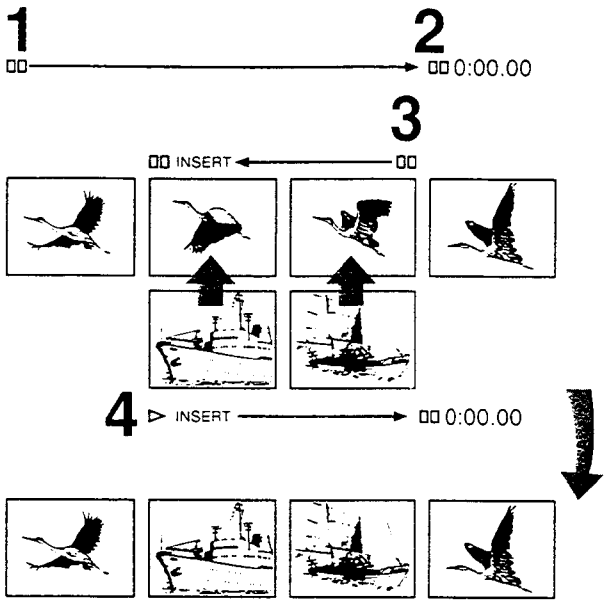
The operation is the same as described for synchronized editing from a Movie Camera.

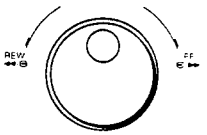
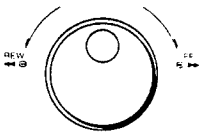
Insert Editing

This is used to substitute one scene for another.

Preparation

- Insert a recorded cassette with an intact erasure prevention tab.
- Select the video source required by pressing **INPUT SELECT** to set A1 or A2.



Operations	Display Symbols	
1		Press **PAUSE/STILL** on the VTR.
2  RESET		Search for the Edit out (ending) point, and set the counter to 0:00.00 by pressing **RESET**.
3  INSERT		Search for the Edit in (starting) point, and press **INSERT**. • If you want to replace the sound on the "normal" audio track, press **AUDIO DUB**, too.
4		Start insert editing by pressing **PAUSE/ STILL**. • The insert editing will finish when the counter reaches 0:00.00.

Note:
Insert Editing cannot be used on blank sections of a tape.

The new sound will be recorded on the Hi-Fi sound track. If AUDIO DUB selected, the new sound will also be recorded on the normal sound track.

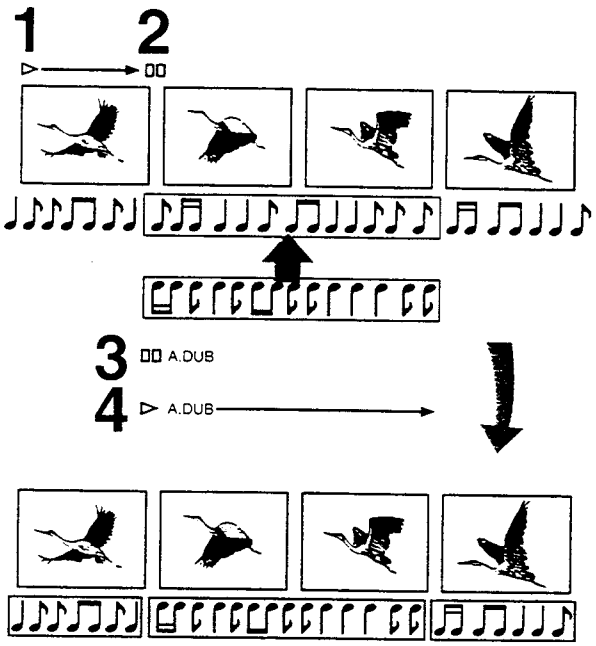
Only monaural sound recording is possible on the normal sound tracks.

Audio Dubbing

The audio dubbing is made on the normal audio track and erases the original sound on this track. On Hi-Fi audio tracks, however, the original sound is maintained.

Preparation

- Insert a recorded cassette with an intact erasure prevention tab.
- Select the audio source required by pressing **INPUT SELECT** to set A1 or A2.



Operations		Display Symbols	
1	PLAY		Search for the starting point for audio dubbing.
2	PAUSE/STILL		Press **PAUSE/STILL** at the starting point.
3	AUDIO DUB	A.DUB	Set for audio dubbing by pressing **AUDIO DUB**.
4	PAUSE/STILL	A.DUB	Start recording the new sound by pressing **PAUSE/STILL**. • Stop recording by pressing **STOP**.

Note:
The new sound will be recorded on the normal sound track of the tape, and the original sound will remain on the Hi-Fi sound track. Only monaural sound recording is possible on the normal sound track.

To hear the new sound, select the normal sound track by pressing **AUDIO OUT**.
To hear the new sound and original sound mixed together, set **Hi-Fi/NORMAL MIX** to ON.

Audio dubbing with Panasonic Hi-Fi VTR

General

a) Due to VHS format reasons, audio dubbing can be performed only on the normal audio track.
b) The Hi-Fi audio tracks cannot be influenced without erasing the video signal.
c) The audio dubbing function is provided with an automatic recording function. The volume level cannot be adjusted. When dubbing to the Hi-Fi VTR, the volume level must be considered in advance.
d) There are three types of audio dubbing (A–C):

A. Audio dubbing on the normal audio track

1. Select the desired AV input.
1.2. The microphone input may also be selected. In this case, the microphone signal has priority.
Disconnect the microphone when other audio signals are to be used.
2. Locate the recording starting point and press **PLAY-PAUSE**.
3. Press **AUDIO OUT** three times to select the normal audio track.
4. Press **AUDIO DUB**.
5. Start audio dubbing by releasing the pause function.
6. After audio dubbing has been completed, rewind the tape and make sure that the normal audio track is selected. (Step **3**)
7. Check the audio dubbing.

B. Audio dubbing on the normal audio track with Hi-Fi Mix function

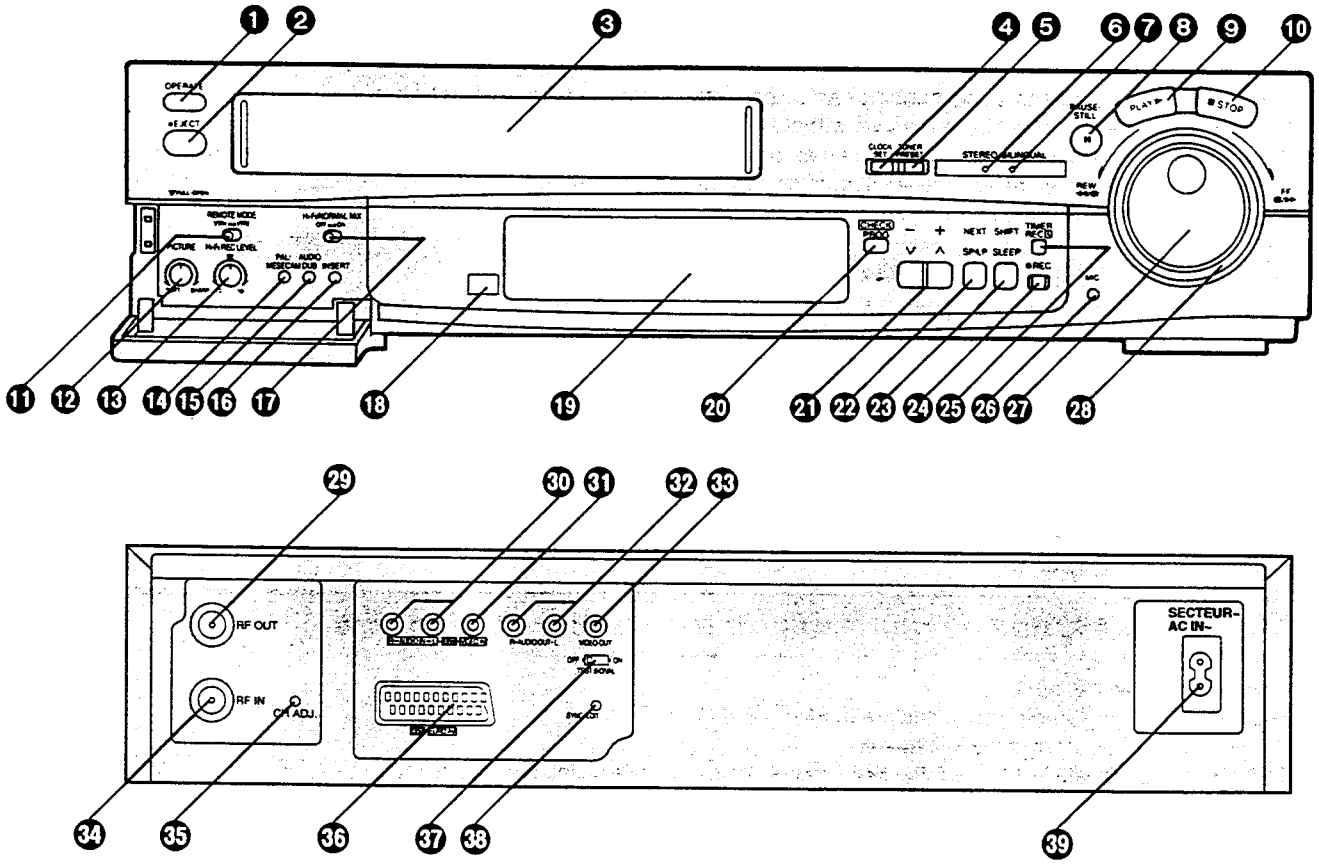
1. Select the desired AV input.
2. Locate the recording starting point and press **PLAY-PAUSE**.
3. The Hi-Fi tracks should be set to playback.
- When a videocassette is inserted, the Hi-Fi tracks are automatically set to playback.
- Hi-Fi tracks must be recorded. Copy the audio signal, if necessary.
4. Press **AUDIO DUB**.
5. Start audio dubbing by releasing the pause function.
6. After audio dubbing has been completed, rewind the tape and set **Hi-Fi/NORMAL MIX** to ON.
7. Check the audio dubbing.
The original sound and the new sound are heard simultaneously.

C. Audio dubbing on the normal audio track with original sound and new sound

1. Select the desired AV input.
2. Locate the recording starting point and press **PLAY-PAUSE**.
3. The Hi-Fi tracks should be set to playback.
- When a videocassette is inserted, the Hi-Fi tracks are automatically set to playback.
- Hi-Fi tracks must be recorded. Copy the audio signal, if necessary.
4. Press **AUDIO DUB**.
- Input the original signals of the Hi-Fi tracks (Audio-Out) to a mixing console (optional) and mix with the new sound as required.
5. Start audio dubbing by releasing the pause function.
6. After audio dubbing has been completed, rewind the tape and make sure that the normal audio track is selected. (Step **3**)
7. Check the audio dubbing.

Controls and Connection Sockets

This gives a detailed explanation of the function of each button, switch and connection socket.



❶ **OPERATE**
To turn the VTR on and off.

❷ **EJECT**
To eject a video cassette.

❸ **Cassette Compartment**
Insert a video cassette here.

❹ **CLOCK SET**
To set the time.

❺ **TUNER PRESET**
To initiate TV station settings for the tuner.

❻ **STEREO Indicator**
When a stereo programme is received, this indicator lights up.

❼ **BILINGUAL Indicator**
When a bilingual programme is received, this indicator lights up.

❽ **PAUSE/STILL**
During playback: Still picture
During recording: To interrupt recording
In the stop mode: Still picture

❾ **PLAY**
To start playback. "▷" is lit.

❿ **STOP**
To stop any playback or recording.

⓫ **REMOTE MODE (VTR1/VTR2)**
VTR1: Set to this position on both the VTR and remote controller for normal use with one VTR.
VTR2: Set to this position when using two Panasonic VTRs.
This allows to operate VTR1 or VTR2 with remote controller.

⓬ **PICTURE**
To make picture sharper (SHARP) or softer (SOFT).

⓭ **Hi-Fi REC LEVEL**
To adjust the recording level to peak at +4 dB on the recording level indicator.

⓮ **PAL/MESECAM**
Set according to the colour TV system used during recording and playback.
When the MESECAM Indicator is lit, the MESECAM system is selected.

⓯ **AUDIO DUB**
To set up the VTR for audio dubbing.
A.DUB indicator lights up.

⓰ **INSERT**
To set up the VTR for insert editing.
INSERT indicator lights up.

⑰ **Hi-Fi/NORMAL MIX**
OFF: Normally set at this position to reproduce the better sound available from the Hi-Fi track.
ON: Both sound tracks (the Hi-Fi sound track and the normal sound track) are played back mixed together. Use this setting when playing back a cassette tape which has been insert edited or audio dubbed.

⑱ **Infra-red Remote Control Receiver Window**

⑲ **Display**

⑳ **CHECK/PROG**
To select a timer programme number.
"1, 2, 3... or 8" is lit.
To display details of preset timer recording.

㉑ **− +/∨ ∧**
To set the clock and timer recording.
To select the required programme position (TV station).

㉒ **NEXT/SP/LP**
To proceed to the next item during setting procedure.
To select the tape speed required for recording.
SP gives the best picture quality.
LP gives the longest recording time.

㉓ **SHIFT/SLEEP**
To blank unoccupied programme position.
To set the time to turn off the VTR automatically.

㉔ **REC**
To start a recording.

㉕ **TIMER REC**
To turn the timer recording function on and off.
⏲ is lit or not lit.
Once Operating timer recording function, the normal VTR operation is not possible unless this button is set to off.

㉖ **MIC**
To connect a microphone for recording.
Once connected, this socket has priority.

㉗ **Jog Dial**
To locate any desired frame with utmost precision.

㉘ **Shuttle Ring**
In the stop mode: To rewind or fast forward the tape.
In the playback mode:
To search picture backward or forward.
In the still playback mode:
To adjust playback speed backward or forward.
In the rewind or fast forward mode:
To obtain high speed picture.

㉙ **RF OUT**
To connect to the aerial terminal on a TV set.

㉚ **AUDIO IN (AV2)**
To connect the audio cable to a Movie Camera or another video recorder.

㉛ **VIDEO IN (AV2)**
To connect the video cable to a Movie Camera or another video recorder.

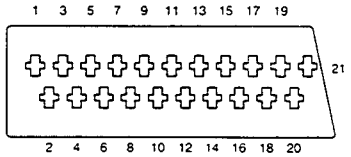
㉜ **AUDIO OUT**
To connect the audio cable to a TV or another video recorder.

㉝ **VIDEO OUT**
To connect the video cable to a TV or another video recorder.

㉞ **RF IN**
To connect to the external aerial.

㉟ **CH ADJ.**
To adjust the RF transmitting channel 32~40.

㊱ **EURO AV (AV1)**
This 21-pin scart terminal carries input and output signals for both picture and sound. TV sets equipped with a similar socket can be connected here.
This is also called Scart
Peritel
Euro Connector
Euro AV



1	AUDIO OUTPUT CH2 (R)	8	SWITCHING VOLTAGE
2	AUDIO INPUT CH2 (R)	17	VIDEO GROUND
3	AUDIO OUTPUT CH1 (L)	19	VIDEO OUTPUT
4	AUDIO GROUND	20	VIDEO INPUT
6	AUDIO INPUT CH1 (L)	21	GROUND

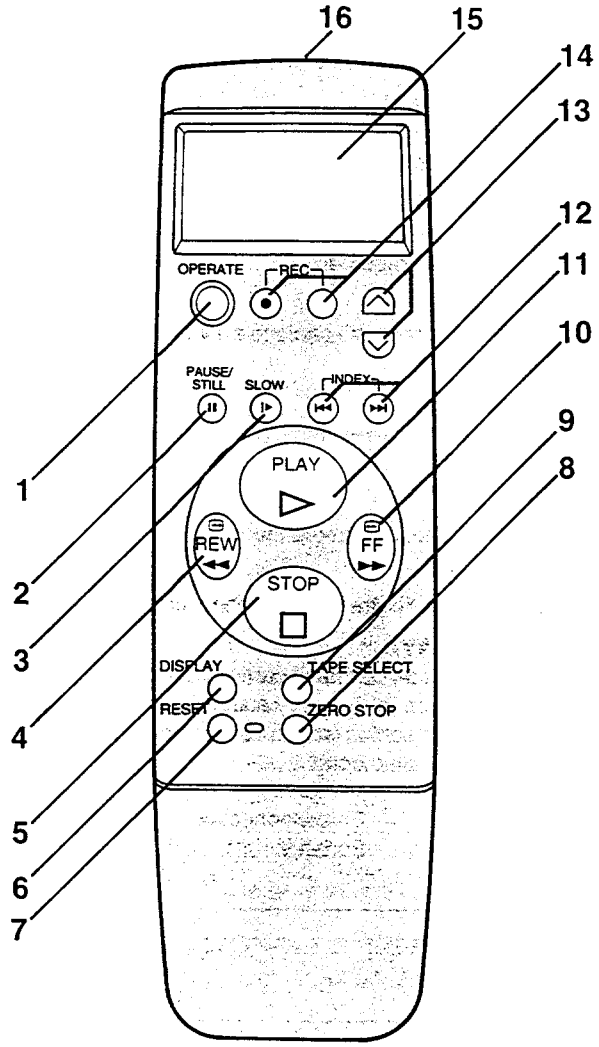
No connection; 5, 7, 9, 10, 11, 12, 13, 14, 15, 16, 18

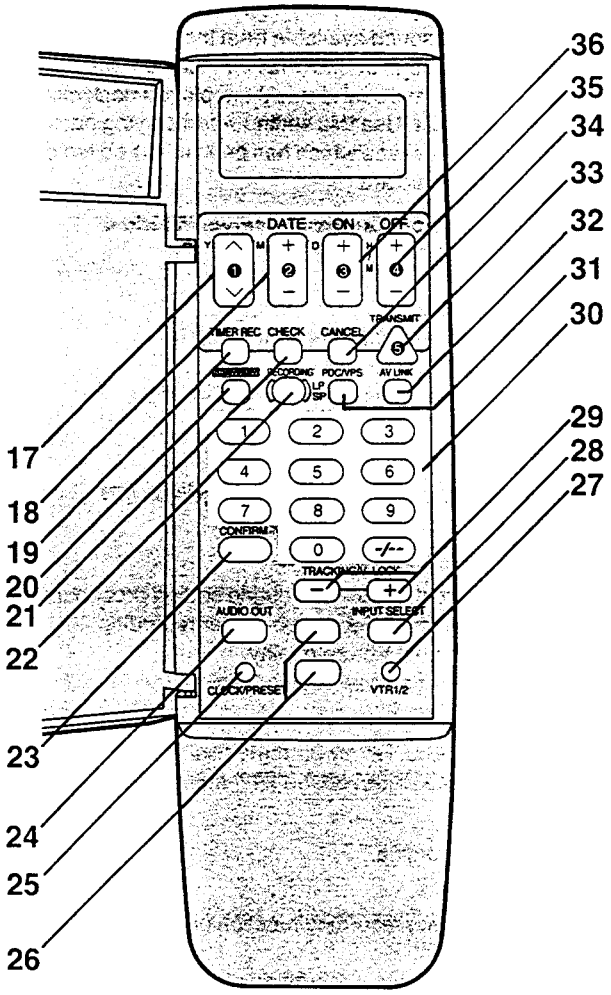
㊲ **TEST SIGNAL**
The test signal is transmitted on channel 36.

㊳ **SYNC. EDIT**
Connecting to a Movie Camera equipped with Synchro Edit Function.

㊴ **AC IN~**
To connect to the main power supply.

Infra-red Remote Controller





1 OPERATE
To turn the VTR on and off.

2 PAUSE/STILL
During playback: Still picture
During recording: To interrupt recording.

3 SLOW
For the slow motion playback function.

4 REW (REWIND)
In the stop mode: To rewind the tape
In the playback mode: To search backward
In the rewind mode: To obtain high speed picture
"◁◁" is lit.

5 STOP
To stop any playback or recording.

6 DISPLAY
To change the indication on the VTR Display.

┌→Clock→Counter→Remaining Tape Time─┐

7 RESET
To reset the tape counter (elapsed time) to "0:00.00".
•The tape counter is automatically reset to "0:00.00" when a video cassette is inserted.

8 ZERO STOP
For the zero stop function.

9 TAPE SELECT
To set the cassette tape length in order to obtain correct indication of the remaining tape time.
E195: For E30, -60, -80, -120, -180 and -195 tapes
E240: For E240 tape
E260: For E260 tape

10 FF (FAST FORWARD)
In the stop mode: To fast forward the tape
In the playback mode: To search forward
In the fast forward mode: To obtain high speed picture
"▷▷" is lit.

11 PLAY
To start playback. "▷" is lit.

12 INDEX
For the index search function.

13 ∨ ∧
To select the required programme position (TV station).

14 REC
To start a recording.
•Press both buttons simultaneously.

15 **Display**

16 **Infra-red Transmitter**
The programming data are transmitted from here to the VTR.

17 **∧ ∨ (Y)**
- To programme a timer recording.
- To set the clock.

18 **DATE (M)**
- To programme a timer recording.
- To set the clock.

19 **TIMER REC**
To turn the timer recording function on and off.
⏲ is lit or not lit.
Once operating timer recording function, the normal VTR operation is not possible unless this button is set to off.

20 **SHOWVIEW**
For the ShowView programming.

21 **CHECK**
To check timer programmes.

22 **RECORDING SP/LP**
To select the tape speed desired for recording.
SP gives the best picture quality.
LP gives the longest recording time.

23 **CONFIRM**
To convert the data of a ShowView number.

24 **AUDIO OUT**
To select the desired sound mode.
At the every push of this button, the audio output mode changes as follows.

→Stereo→Left→Right→Normal audio track→

The Left and Right Indicators show which sound mode is selected in the following way.

Stereo: Both the Left and Right Indicators are lit.
Left: The Left Indicator is lit.
Right: The Right Indicator is lit.
Normal: Both the Left and Right Indicators are not lit.

25 **CLOCK/PRESET**
- To set the clock.
- To set the TV stations.

26 No function.

27 **VTR1/2**
VTR1: Set to this position on both the VTR and remote controller for normal use with one VTR.
VTR2: Set to this position when using two Panasonic VTRs.
This allows to operate VTR1 or VTR2 with remote controller.

28 **INPUT SELECT**
To select the "A1" or "A2" external recording source.

29 **TRACKING/V-LOCK**
For manual tracking adjustment
The + and − buttons are used to adjust the tracking when, for example, noise bars on the picture are better removed manually than by the automatic digital tracking control. After making a manual adjustment, press both buttons together to return to automatic digital tracking control.

For slow tracking adjustment
When noise bars appear during Still or Slow playback, switch over to slow playback and adjust with the "+" or "−" Button to reduce the noise bars.

For vertical locking adjustment
Use the + and − buttons to minimize any vertical jitter during still-picture playback.

30 **Programme Position Selector Buttons**
- To select the programme positions.

9: (9)
19: (-/--) → (1) → (9)

- To programme a ShowView number.

31 **PDC/VPS**
To turn the VPS or PDC function on and off.

32 No function.

33 **TRANSMIT**
To transmit the data that has been set on the remote controller to the VTR.

34 **CANCEL**
To cancel the settings made for a timer recording.

35 **OFF (H:M)**
- To programme a timer recording.
- To set the clock.

36 **ON (D)**
- To programme a timer recording.
- To set the clock.

Before Requesting Service

Before requesting service, check the following points once again.

VTR will not operate correctly			
SYMPTOM	**CAUSE**	**REMEDY**	**CHECKED**
VTR display is not illuminated.	Mains lead is not connected.	Reconnect mains lead to VTR.	
VTR display is illuminated but VTR will not operate.	VTR is in timer mode.	Press **TIMER REC** to operate VTR manually.	
	Safety devices are operating.	Disconnect mains lead and wait for 1 minute. Reconnect mains supply and check functions.	
	Condensation may have formed.	Do not operate VTR for 1 hour.	

Playback will not operate correctly			
SYMPTOM	**CAUSE**	**REMEDY**	**CHECKED**
Picture noisy or not in colour. Horizontal bars or lines run down the screen.	Tracking is not correct.	Adjust the tracking. See page 31.	
	TV set is not tuned to VTR.	Operate **TEST SIGNAL** on VTR and check TV tuning. See page 5.	
	Video heads are clogged or worn.	Consult your dealer for further advice.	

Recording will not operate correctly			
SYMPTOM	**CAUSE**	**REMEDY**	**CHECKED**
"⊙⊙" indication flashes whenever recording is attempted.	Erasure prevention tab on cassette is broken off.	Use tape with intact erasure prevention tab, or cover tab hole with adhesive tape, if original recording is no longer required.	
Picture is recorded with noise or blank screen.	Aerial or aerial lead is defective.	Check aerial connection to VTR. See page 4. Check your normal TV picture. If there is no picture, check your aerial.	
	VTR is not correctly tuned.	Re-tune VTR. See page 10. Ensure input selector set to TV programme.	
Timer recording cannot be performed.	Clock or calendar is incorrectly set.	Check clock and calendar. Set to present time. (Note this is a 24 hour clock.) See page 6.	
	Recording start or end time settings are incorrect.	Set recording start and stop time correctly.	
	VTR is not set for timer recording.	Press **TIMER REC** after programming for timer recording.	
AV external recordings cannot be made.	Input selector is not correctly set.	Select A1 or A2.	
	External AV connections are incorrect.	Check that connections for external video and audio source are correct. See page 24.	

Remote controller will not work correctly			
SYMPTOM	**CAUSE**	**REMEDY**	**CHECKED**
Remote controller does not operate correctly.	Remote controller transmitter beam is not reaching VTR.	Ensure that remote controller is being pointed at VTR and that transmitter beam is not obstructed.	
	Distance is too far.	Use remote controller within 7 m of VTR. If this range is not possible, replace batteries.	
	Batteries are exhausted.	Replace batteries. Note precaution for replacement on page 7.	
	Batteries are incorrectly fitted with (+/−) reversed.	Fit batteries correctly as shown on page 7.	

Precautions

Please read these cautions before you operate this VTR.

Avoid Sudden Changes in Temperature

If the VTR is suddenly moved from a cold place to a warm place, moisture may form on the tape and inside the VTR.

Humidity and Dust

Avoid places where there is high humidity or much dust, which may cause damage to internal parts.

Do Not Obstruct the Ventilation Holes

The ventilation holes prevent abnormal increase in temperature. Do not block or cover these holes. Especially avoid covering the holes with soft materials such as cloth or paper.

Keep away from High Temperature

Keep the VTR away from extreme direct heat such as direct sunlight, heating radiators, or closed automobiles.

Keep Magnets away

Never bring a magnet or magnetized object near the VTR because it will adversely affect the performance of the VTR.

No Fingers or Other Objects Inside

Touching internal parts of this VTR is dangerous, and may cause serious damage to the VTR. Do not attempt to disassemble the VTR. There are no user serviceable parts inside.

Keep Water away

Keep the VTR away from flower vases, tubs, sinks, etc.
CAUTION: If liquids are spilled into the VTR, serious damage could occur. If you spill any liquid into the VTR, consult qualified service personnel.

Lightning

To avoid damage by lightning, disconnect the aerial plug from the VTR.

Cleaning the VTR

Wipe the VTR with a clean, dry cloth. Never use cleaning fluid, or other chemicals. And do not use compressed air to remove dust.

Stacking

Place the VTR in a horizontal position, and do not place anything heavy on it.

Video Head Clogging

The video heads place picture signals on the tape during recording and read picture signals from the tape during playback and they are, therefore, of critical importance for the picture quality. If the VTR is used over extremely long periods of time, these heads may still become dirty and clogged. In such a case, the signals can no longer be recorded correctly, and the playback picture will be distorted accordingly. This is the case, for example, during the playback of a tape, the sound is reproduced normally. but no picture is seen, or the picture is greatly distorted. When such a symptom case occurs have the recorder checked by qualified service personnel.

Condensation may form in the VTR if:

- The VTR is in a room when the heater has just been turned on.
- The VTR is in a room with steam or high humidity.
- The VTR is brought from cold surroundings into a well-heated room.
- The VTR is suddenly brought from cool surroundings, such as an air-conditioned room or car, to a place which is hot and humid.

Note:
Do not operate the VTR for at least 1 hour if any of the above conditions occur.
This VTR does not incorporate a dew sensor.

Specifications

NV-HD101EG

Information for Your Safety

Power Source:	220–240 V AC 50–60 Hz		
Power Consumption:	33 watts		
Video Recording System:	2 rotary heads, helical scanning system		
Hi-Fi Recording System:	2 rotary Hi-Fi heads, helical scanning system		
Video Heads:	4 heads		
Audio Heads:	2 heads		
Tape Speed:	SP; 23.39 mm/sec.		
	LP; 11.7 mm/sec.		
Tape Format:	VHS tape		
Record/Playback Time:	SP; 240 min. with NV-E240		
	LP; 480 min. with NV-E240		
VIDEO			
Television System:	CCIR; 625 lines, 50 fields, PAL colour signal		
Modulation System:	Luminance; FM azimuth recording		
	Colour signal; converted subcarrier phase shift recording		
Input Level:	VIDEO IN (AV2) (PHONO);	1.0 Vp-p,	75 ohm, terminated
	Euro AV (AV1);	1.0 Vp-p,	75 ohm, terminated
Output Level:	VIDEO OUT (PHONO);	1.0 Vp-p,	75 ohm, terminated
	Euro AV (AV1);	1.0 Vp-p,	75 ohm, terminated
	RF Modulated;	UHF channel 36 (±4),	75 ohm, terminated
AUDIO			
Input Level:	AUDIO IN (AV2) (PHONO);	−10 dBV,	more than 47 kohm
	Euro AV (AV1);	−6 dBV,	more than 10 kohm
	MICROPHONE (M3);	−70 dBV	
Output Level:	AUDIO OUT (PHONO);	−8 dBV,	less than 1 kohm
	Euro AV (AV1);	−6 dBV,	less than 1 kohm
Audio Track:	1 track (Normal-mono only), 2 channels (Hi-Fi sound-stereo)		
Video Horizontal Resolution:	Colour; more than 240 lines (SP)		
Dynamic Range:	Audio; more than 90 dB (Hi-Fi audio track)		
Audio Frequency Response:	20 Hz–20 kHz		
Wow and Flutter:	0.005% Wrms/Hi-Fi		
Operating Temperature:	5°C–40°C		
Operating Humidity:	35%–80%		
Weight:	5.3 kg		
Dimensions:	430 (W)×96 (H)×362 (D) mm		
Standard Accessories:	1 pc. Antenna Cable		
	1 pc. Remote Controller		
	2 pcs. "R6" size batteries		
	1 pc. Stereo type Phono Cable		
	1 pc. AC Mains Lead		

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.